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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/612,994	07/07/2003	Yen-Hsi Lin	87391.0200	9823

7590 01/30/2006

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EXAMINER	
NILAND, PATRICK DENNIS	
ART UNIT	**PAPER NUMBER**
1714	

DATE MAILED: 01/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/612,994	LIN, YEN-HSI	
	Examiner	Art Unit	
	Patrick D. Niland	1714	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *04 November 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-22 and 25* is/are pending in the application.

4a) Of the above claim(s) *11-21* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-10,22 and 25* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *5/18/04*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

1. This application contains claims 11-21 drawn to an invention nonelected with traverse in the Paper of 11/4/05. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

2. Applicant's election with traverse of group I, claims 1-10, 22, and 25 in the reply filed on 11/4/05 is acknowledged. The traversal is on the ground(s) that examining both inventions does not place an undue burden on the examiner. This is not found persuasive because the examiner has 14 hours to examine the entirety of this application and searching the two distinct and separately classified inventions is not possible in this short time. That is an undue burden.

The requirement is still deemed proper and is therefore made FINAL.

3. Claims 1-10, 22, and 25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

A. It is unclear what is meant by the concentration percentage of the waterborne polyurethane aqueous solution of the instant claims. Specifically, it is unclear if this concentration is based on only the polyurethane solution or the entire composition of the instant claims.

B. It is unclear what is meant by "lipophilic to monomer" of the instant claim 1. It is further unclear if the percentages following this phrase are based on the entire composition or only the lipophilic monomer and phase change material. Furthermore, it is unclear if this percentage relates only to the monomer solving in the phase change material and does not exclude further lipophilic monomer being present which does not solve in the phase change material.

C. It is unclear if the ration of lipophilic monomer to waterborne polyurethane is based on the polyurethane per se or the polyurethane and water.

D. It is unclear how the propionic acid triethylamine salt and diamine containing sulfonate salt are to be considered polyurethanes in claim 2. While the applicant may be their own lexicographer, these compounds are not per se polyurethanes but are components used in polyurethanes. It is therefore unclear if they are required to be reacted with something else to make an actual polyurethane. The lack of the term "of" after "consisting" might also add to the confusion as the grammar of the claim is in question also. As the claim stands, it is confusing.

E. It is unclear what is encompassed by isocyanate salt of the instant claim 7. Is this the reaction of NCO and water to make carbamic acid which is neutralized to give salt or some other compound?

F. The instant claims 8-10 recite "preferred" with regard to the claimed ranges. It is therefore unclear if the claimed ranges are required or not.

G. It is unclear what is meant by "20" in the third line of claim 22.

H. The instant claims 5 and 22 recite Markush groups without using "closed" language. It is therefore unclear if it is intended to be open to other things or not. In the former case, it is an improper Markush group. See MPEP 2173.05(h). "Selected from a group" in claim 22 further renders the claim unclear in that this language makes it appear that other groups might also be used due to the recitation of "a group" rather than "the group". It is unclear what these other groups are in addition to this being an improper Markush group.

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 22 and 25 are rejected under 35 U.S.C. 102(b) as being anticipateed by US Pat. No. 2523848 Schaerer et al..

Schaerer shows that the acetates and propionates of the instant claims 22 and 25 are known. See column 3, lines 4-20, particularly 13-20. The instant claims only require the presence of these compounds. These compounds of the patentee must therefore inherently contain the instantly claimed abilities relating to fabricating a microcapsule. It would also appear that the entire composition of the patentee would also have this inherent ability given that it is a wax and therefore has the properties inherent to a wax and the instant claims encompass all solid waxes.

7. Claims 22 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Pat. No. 2523848 Schaerer et al..

Schaerer shows that the acetates and propionates of the instant claims 22 and 25 are known. See column 3, lines 4-20, particularly 13-20. The instant claims only require the presence of these compounds. These compounds of the patentee must therefore inherently contain the instantly claimed abilities relating to fabricating a microcapsule. It would also appear that the entire composition of the patentee would also have this inherent ability given that it is a wax and therefore has the properties inherent to a wax and the instant claims encompass all solid waxes.

It would have been obvious to one of ordinary skill in the art to use the instantly claimed formates because they are encompassed by "lower fatty acids" and "like anions" of the patentee and would have been readily envisioned by the ordinary skilled artisan as formates are the first in line of the sequence of lower fatty acids.

8. Claims 1-10 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

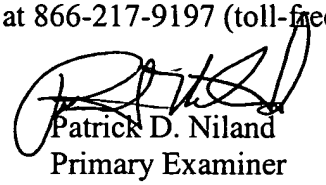
Xing is representative of the closest prior art considered by the examiner. While there are numerous references relating to microcapsule compositions containing wax and polyurethane or its intermediate reactants, the prior art does not disclose the instantly claimed combinations of ingredients and amounts thereof to the extent that these amounts can be determined. The examiner has considered the overlap between phase change materials and the other materials in the instant claims given that they can all change phases. But, even considering this reading of the claims, the examiner sees no prior art disclosure of the instantly claimed inventions nor teachings which render the instant claims 1-10 obvious.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patrick D. Niland whose telephone number is 571-272-1121. The examiner can normally be reached on Monday to Thursday from 10 to 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan, can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Patrick D. Niland
Primary Examiner
Art Unit 1714